

PURCHASE DESCRIPTION

OSCILLOGRAPHIC RECORDER

RDOMN-D

- 1.0 GENERAL This procurement requires a high performance two-channel oscillographic recorder with input ranges from 1.0 mV/division to 5.0 V/division in a 1, 2, 5 sequence.
- 2.0 CLASSIFICATION The equipment shall meet the requirements of MIL-T-28800( ), Type III, Class 5, Style E, Color R for Navy shipboard, submarine, and shore applications with the following modifications and exceptions:
- a. The Electromagnetic Interference requirements of MIL-T-28800 are limited to CE01, CE03, CS01, CS02 (0.05 to 100 MHz), CS06, RE01 (back panel search excluded), RE02 (14kHz to 10 GHz), and RS03.
- 3.0 OPERATIONAL REQUIREMENTS
- 3.1 Number Input Channels: Two
- 3.2 Chart Description: At least 40 mm (minimum) wide channels are required with at least 40 divisions (minimum) full scale and with time lines every 2 mm.
- 3.3 Chart Speeds: At least 6 selectable speeds which include three of the following: 5, 25, 100 and 125 mm/sec.
- 3.4 Chart Speed Accuracy: The chart speed accuracy shall be  $\pm 5\%$  plus power line frequency variations at all temperatures across the range.
- 3.5 Plug-in Preamplifiers: If plug-in preamplifiers are used, they shall be interchangeable without recalibration.
- 3.6 Input Ranges: The recorder shall provide at least 12 input ranges from 1.0 mV/div to 5.0 V/div in a 1, 2, 5 sequence with a continuous vernier between ranges.
- 3.7 Input Resistance: A 1 megohm (minimum) input resistance is required.
- 3.8 Maximum Allowable Input: The maximum allowable input voltage shall be at least 230 Vdc (or Vrms).
- 3.9 Common Mode Voltage: The common mode voltage shall be at least 250 Vdc or peak ac on 500 mV/div range and above.
- 3.10 Event Marker/Timer: An event marker and a timer are required. Event markers shall be capable of being operated from the front panel or rear terminal via contact closure or TTL level. Timer marks shall be in uniform intervals, to include 1/hour.
- 3.11 Frequency Response: For 10 divisions deflection, the frequency response shall be flat within

$\pm 2\%$  to 100 Hz and a maximum of 3 dB down at 125 Hz.

3.12 Pen: The writing system shall produce a clear, concise trace at a maximum width of 0.5 mm. Either thermal printing or a fiber tipped pen may be used. At maximum chart speed, the resulting recording shall be a permanent, blot-proof, smudge-proof presentation of the data.

3.13 Paper Take Up: A paper take-up reel is required.

#### 4.0 GENERAL SPECIFICATIONS

4.1 Power: 115/230 Vac  $\pm 10\%$ , 50/60 Hz, 190 VA maximum

4.2 Dimensions: Less than 12 in x 17 in x 15 in

4.3 Weight: 18.2 kg (40 lb) nominal

4.4 Calibration Interval: The calibration interval shall be 12 months minimum. The equipment shall be within all accuracy requirements specified herein, with a 72% or greater confidence factor following a calibration interval of 12 months.